If Hevel did really observe the same star as Mr. Gore there must be an error of 1° in Hevel's observation. Hevel calls the star 7 mag., but there is no star of that size either in the Bonn maps or in the heavens with which it can be identified, without the assumption of some error.

Flamsteed measured the places of the quadrilateral of stars formed by 54, 57, 61, and 62 *Orionis* with the sextant on February 20, 1680, but makes no mention of any star inside the group.* The star does not occur in Sufi or any of the ancient catalogues.

Dun Echt Observatory:
1886, *January* 7.

Observations of the Spectrum of Nova Orionis made at the Royal Observatory, Greenwich. By E. W. Maunder.

The spectrum of the new variable, discovered by Mr. Gore near χ' *Orionis*, was examined on the evening of 1885, December 29, with the "half-prism" spectroscope reversed, and a train of one "half-prism," giving a dispersion of about 5° from A to H. A magnifying power of 28 was used upon the viewing telescope. A cylindrical lens was employed before the slit, which was not quite sufficiently narrow to separate the bright lines of the magnesium spectrum which correspond to b_2 and b_4, Slit width=0·00688 in. corresponding to about 7″ of arc.

The spectrum is an exceedingly pronounced example of Secchi's third type. The dark bands are *very* dark; the bright zones or interspaces *very* bright, and with a low dispersion would undoubtedly present the appearance of bright lines. With the dispersion employed, however, no bright lines could be detected, nor was any local irregularity of brightness, which could reasonably be suspected to be a bright line, seen anywhere; notwithstanding that, as just stated, the brilliance of the bright zones, especially close to the sharp edges of the dark bands, was very striking.

Four dark bands were very conspicuous. Adopting the numeration employed in the observations of β *Pegasi*, made on 1876, October 18, and published in the volume of Greenwich Observations for 1876, these were Bands IV., V., VI., and VII. The following three measures were obtained of the sharp, more refrangible edge of Band VI. (Band 7 in Dunér's nomenclature):—

	Wave-length. Tenth-metres.
	5167·76
	5170·29
	5170·57
Mean ...	5169·54

* *Hist. Cœl.*, i. p. 81.

Bands IV. and V. were identified beyond any doubt by their proximity to the line λ 5527, of the magnesium spectrum and Band VII. (Dunér's Band 8), by its neighbourhood to the double line of air λ 5003, and it was clear that they occupied their usual places. These were measured in the spectrum of *β Pegasi*, on the occasion above referred to, as λ 5610, λ 5450, and λ 4953. The dark line on Band VI., the wave-length of which was measured in the spectrum of *β Pegasi* as λ 5272 (Dunér's Band 6), was not identified, but Band VI. was so broad that it probably embraced this line or sub-band within its limits. A band was also seen at D, without doubt Band II., λ 5869 (Dunér's Band 3), and another beyond F, probably Band VIII., λ 4761 (Dunér's Band 9). Band I., λ 6169 (Dunér's Band 2), was only just suspected. The spectrum was not traced far enough for bands to be detected beyond these, either towards the red or the violet. Some feeble bands or lines were suspected between Bands V. and VI., but none of the great bands were resolved into lines. The *breadth* of the great bands seemed to be about the same as usually observed in stars of this type. The dark line or narrow band at λ 5272 is often confused with Band VI., and the breadth of the latter was not greater than would result from this cause.

Royal Observatory, Greenwich:
1886, *January* 6.

Changes in the Red Spot on Jupiter. By W. F. Denning.

It may be interesting to record and compare some of the visible changes which have occurred in the aspect of this remarkable formation; and with this end in view I send the accompanying drawing of the appearances observed in my 10-inch Reflector on several occasions since 1880.

A brief *seriatim* description of the most noteworthy features and variations of the spot and region near will be sufficient for the present purpose. A discussion of the phenomena in their physical relations would only be premature pending the further accumulation of records. In each case the spot was delineated at mid transit.

1. 1880, Nov. 19, $9^h\ 23^m$.—Red spot very dark and definite in outline with minute black speck at following end. N. of the centre the white equatorial spot is seen, the two markings being in conjunction.

2. 1881, Sept. 28, $13^h\ 11^m$.—The spot very red and conspicuous, with small black marks at E. and W. extremities. Immediately N., and slightly preceding, the white equatorial spot is observed with its normal light-trail running to N.E. and confused with other irregularities on the equator. N. of the following end a very curious narrow, curved belt, of red colour,